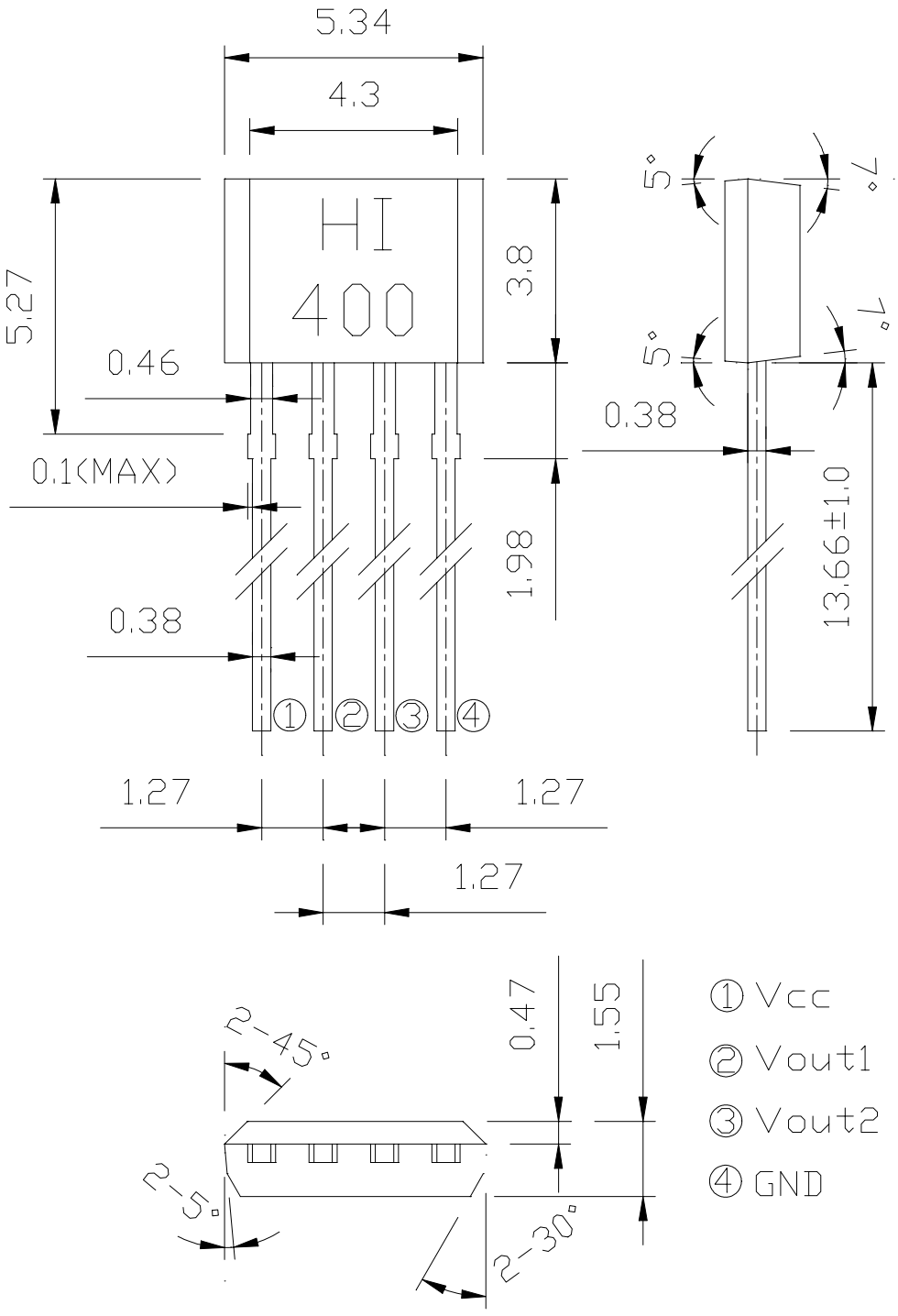
■ PACKAGE DIMENSIONS:



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TEL: 886-2-2267-2000,2267-9936(22Lines)
FAX: 886-2-2267-6189
http: //www.everlight.com

■ NOTES:

1. This drawing measure is a standard value. All dimensions are in millimeter.
2. In case of designation is tolerance ± 0.3mm.
3. Lead spacing is measured where the lead emerge from the package.
4. Protruded resin under flange 1.0 mm Max.
5. Lens color : Black.
6. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
7. These specification sheets include materials protected under copyright of EVERLIGHT corporation. Please don't reproduce or cause anyone to reproduce them without EVERLIGHT consent.
8. When using this product, please observe the absolute maximum ratings and the instructions for use outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.

■ FEATURES:

1. 4V to 20V operation.
2. No need for reverse voltage.
3. High reliability.
4. Small size.
5. Output compatible with all digital logic families.

■ APPLICATIONS:

1. Brushless DC motor.
2. Rotation detection.
3. Displacement detection.
4. Speed sensing.

■ ABSOLUTE MAXIMUM RATINGS: (Ta=25℃)

PARAMTER	SYMBOL	RATING	UNIT	CONDITION
Supply Voltage	Vcc	20	V	-
Supply Current	Icc	25	mA	-
Output Current- Continuous Peak(Start Up)	I_{OUT}	300 700	mA	-
Maximum Power Dissipation	P_D	500	mW	-
Operating Ambient Temperature	T_A	-20~+85	℃	-
Storage Temperature	T_{STG}	-55~+120	℃	-
Soldering Temperature	T_{SOL}	260	℃	1/16 inch from body for 5 seconds

■ ELECTICAL CHARACTERISTICS: (Ta=25℃)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITION
Supply Voltage	Vcc	4	-	20	V	Operating
Output Saturation Voltage	$V_{CE(SAT)}$	-	250	500	mV	Vcc=14V, I_{OUT}=400mA, B>Bop
Supply Current	Icc	-	18	25	mA	Vcc=20V, Output Open
Output Leakage Current	I_{LEAK}	-	-	5	μA	V_{CE}=14V, Vcc=14V
Output Rise Time	tr	-	3.0	10	μS	Vcc=14V, R_L=820Ω, C_L=20pF
Output Rise Time	tf	-	0.3	1.5	μS	

■ MAGNETIC SPECIFICATION: (Ta=25℃)

Condition:Vcc=20V Unit :Gauss

Bin Number	Bin 1	Bin 2	Bin 3	Bin 4
Min	1	55	85	125
Max	70	100	140	200

TYPICAL CHARACTERISTICS CURVES:

Fig. 1 Supply Current V.S. Supply Voltage

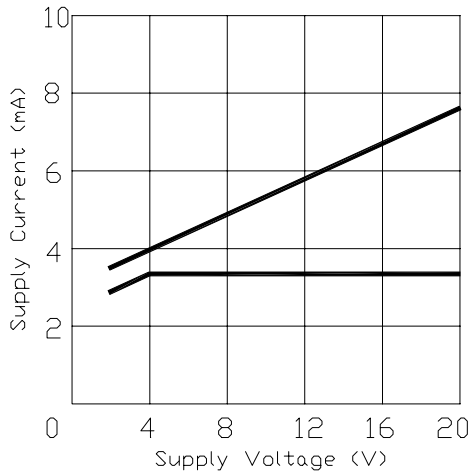


Fig. 2 Output Low Voltage V.S. Supply Voltage

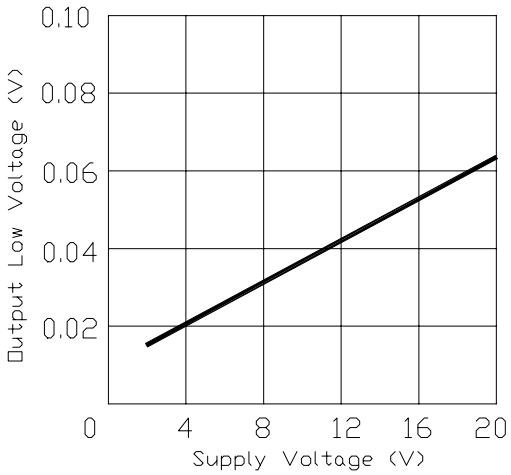


Fig. 3 Switch Points (Bop,Brp) V.S. Supply Voltage

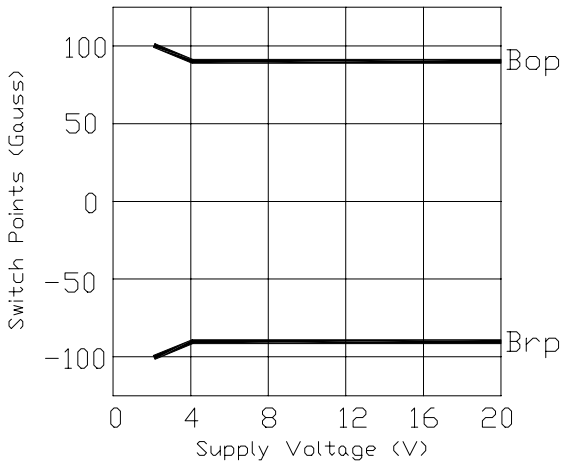


Fig. 4 Switch Points V.S. Ambient Temperature

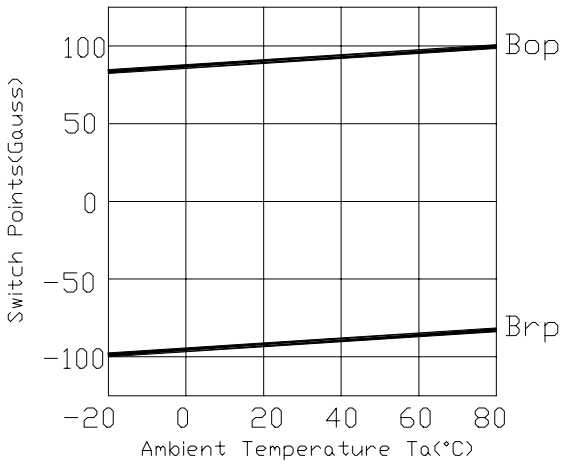


Fig. 5 Supply Current V.S. Ambient Temperature

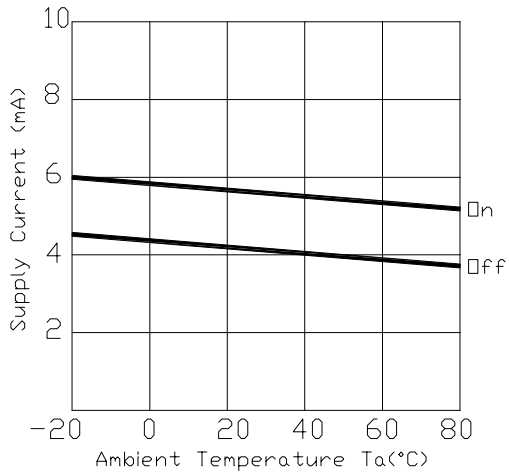
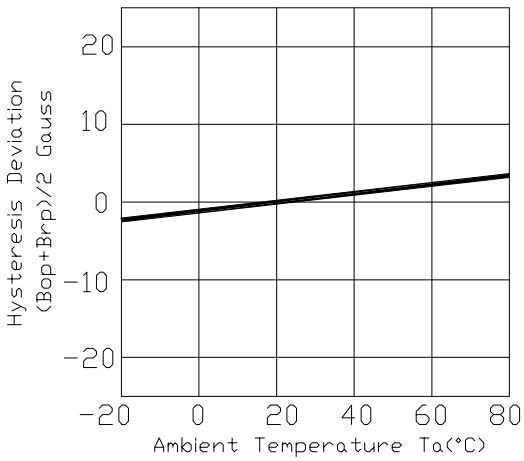
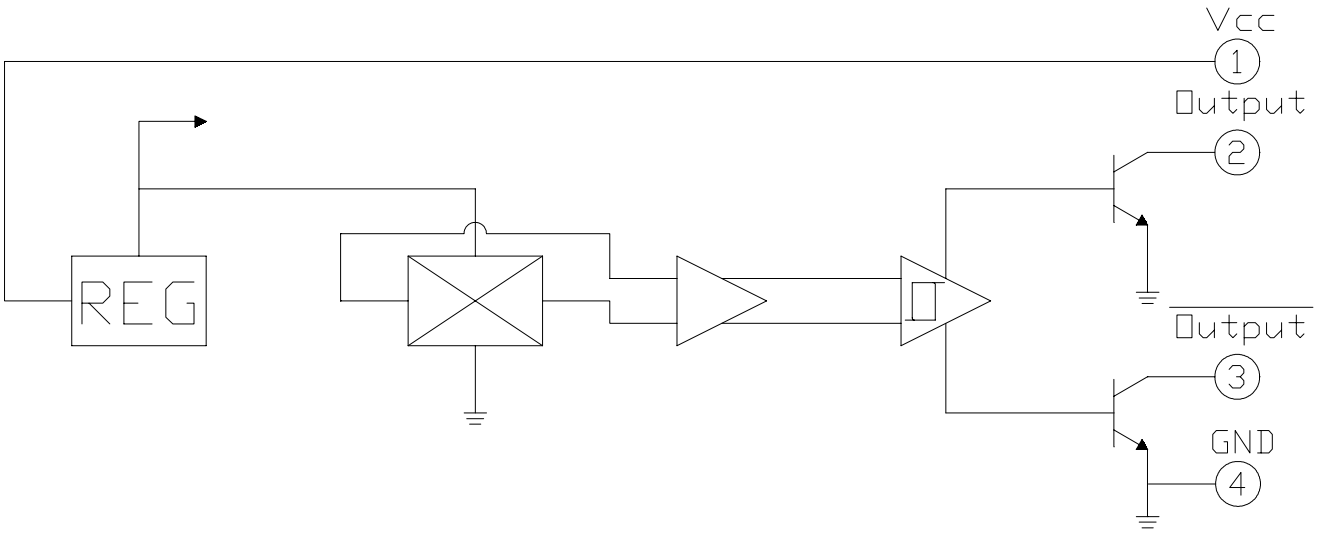


Fig. 6 Hysteresis Deviation V.S. Ambient Temperature



FUNCTION BLOCK DIAGRAM:



RELIABILITY:

The reliability of products shall be satisfied with items listed below.
Confidence level : 90%
LTPD : 10%

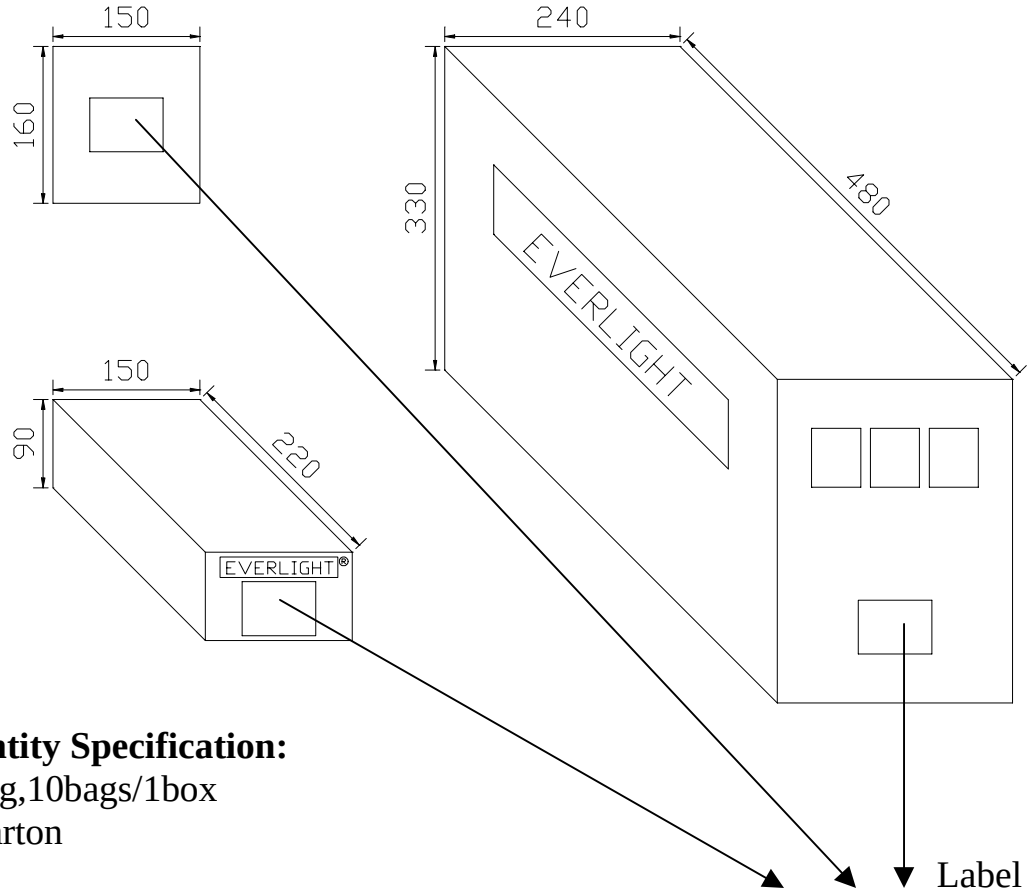
TEST ITEMS	TEST CONDITIONS	FAILURE JUDGEMENT CRITERIA	SAMPLES(n) / DEFECTIVE(c)
Operation life	Vcc=12V,Ta=25℃1000hrs		n=22 , c=0
Temperature cycle	1 cycle -55℃ to +85℃ (30min) (30min) 50 cycle test	|Bop|<± 20Gauss |Brp|<± 20Gauss 0.8*L<I_{CC}<1.2*U*	n=22 , c=0
Thermal shock	-10℃ to +100℃ (5min) (10sec) (5min) 50 cycle test	V_{SAT}<1.5*U I_{LEAK}<1.5*U	n=22 , c=0
High temperature storage	Temp : +150℃ 1000hrs	L : Lower Specification Limit	n=22 , c=0
Low temperature storage	Temp : -55℃ 1000hrs		n=22 , c=0
High temperature High humidity	TA : 85℃ RH : 85% 1000hrs		n=22 , c=0
Solder heat	Temp : 260 ± 10℃ sec 4mm Form the bottom of the package	U : Upper Specification Limit	n=22 , c=0

■ PACKING SPECIFICATIONS: (UNIT : mm)

1.Bag:

2.Box:

3.Carton:



Packing Quantity Specification:

1.1000Pcs/1bag,10bags/1box

2.10boxes/1Carton

Label Specification:

CPN : Customer's Production Nimber

P/N : Production Number

QTY : Packing Quantity

CAT : Ranks

HUE : Reference

REF : Reference

LOT NO : Lot Number

MADE IN TAIWAN : Production place